



NCCS/NICS Fall 2009 Cray XT5 Hex-core Workshop

Dates Dec. 7 - 9, 2009

Location JICS Auditorium (ORNL)

Draft Agenda

Time	Topic	Speaker(s)
Day 1 - Morning		
8:15 – 8:30 AM	Welcome and Introduction to the Workshop	Ashley Barker, NCCS User Assistance & Outreach Group Lead
8:30 – 9:00 AM	Cray XT Architecture -detailed description of Cray XT5 systems, including interconnect and node	Jeff Larkin, Cray
9:00-10:00 AM	Description of AMD 6-core CPU for Application Developers	Brian Waldecker, AMD Staff
10:00 – 10:15 AM	Break	
10:15 – 10:45 AM	Cray Roadmap Update	Jeff Larkin, Cray, Inc.

Time	Topic	Speaker(s)
10:45 – 11:15 AM	Overviews of NICS XT5 6-core Systems - Kraken	Daniel Lucio, NICS Staff
11:15 – 11:45 AM	Overviews of NCCS XT5 6-core Systems - Jaguar	Donald Frederick, NCCS Staff
Noon – 1:00 PM	Working lunch – review of morning materials, Question and Answers; Presentation on application experience on XT systems : User Experience Topic: “Introduction to Cray Portals Communication Layer”	Kittrich Sheets, Cray
Day 1 - Afternoon		
1:00 – 2:00 PM	Using CrayPAT to measure application performance	Luiz DeRose, Cray, Inc
2:00 – 3:00 PM	Hands-on Session Intro to using NCCS/NICS/XT5 6-core systems	NCCS/NICS/Cray Staff
3:00 – 3:15 PM	Break	

Time	Topic	Speaker(s)
3:15 – 5:00 PM	Hands-on Session Intro to using NCCS/NICS/XT5 6- core systems	NCCS/NICS/Cray Staff
Day 2 Morning		
8:15 – 10:15 AM	Specific Optimiza- tions for the Cray XT5 6-Core Sys- tems, including MPI	Jeff Larkin, Cray, Inc.
10:15 – 10:30 AM	Break	
10:30 – 11:15 AM	Using Cray MPI – An Application De- veloper’s Perspec- tive	Mark Fahey, NICS
11:00 – 11:45 AM	Introduction to Cray Com- pilers	Nathan Wichman, Cray, Inc.
Noon – 1:00 PM	Working lunch – review of morning materials, Ques- tion and Answers; Presen- tation on application expe- rience on XT systems : User Experience Topic: “Scalable Methods for Ab Initio Calcu- lations of Free En- ergy in Magnetic Nanoscale Sys- tems”,	Speaker - Marcus Eisen- bach, ORNL
Day 2 Afternoon		

Time	Topic	Speaker(s)
1:00 – 1:45 PM	The Cray Scientific Libraries	Adrian Tate, Cray
1:45 – 2:30 PM	Using PGI Compilers	PGI Staff
2:30- 3:00 PM	Introduction to Lustre and NCCS Spider Parallel file systems for XT5	David Dillow, NCCS
3:00 -3:30 PM	Using I/O on Cray XT Systems	Lonnie Crosby, NICS
3:30 – 4:00 PM	Using a High-Level I/O library for Improved Performance: ADIOS	Jay Lofstead, Georgia Tech
4:00 – 5:00 PM	Hands-on session	
Day 3 Morning		
8:15– 9:15 AM	Introduction to OpenMP on the XT5	Christian Halloy, NICS
9:15– 10:15AM	Using Debuggers on XT5: TotalView	Totalviewtech Staff
10:15 -10:30 AM	Break	
10:30 -11:30 AM	Using Debuggers on XT5: DDT	Allinea Staff
11:45 - 1:00 PM	Working lunch – review of morning materials, Question and Answers; Presentation on application experience on XT systems : User Experience Topic: “Parallel Analysis and Visualization on the Cray Linux Environment “	Sean Ahern, NCCS

